



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

XLIV. *A Comparifon of the Heat of London and Edinburgh.* By John Roebuck, M. D. F. R. S. in a Letter to William Heberden, M. D. F. R. S.

S I R,

Redde, June 29, ^{1775.} **I** DELIVERED to you fome time ago, a register of the thermometer at Hawkhill for ten years; but as thefe obfervations were made at eight o'clock in the morning and four in the afternoon, and yours at eight o'clock in the morning and two in the afternoon, the correfponding years of the morning's obfervations only admit of a comparifon. It appears by your register, that the mean heat at London for nine years, from the end of 1763 to the end of 1772, at eight o'clock in the morning, was 47.4° ; and the mean heat at Hawkhill, during the fame period of time, was 46° . The difference of which is only 1.4° . A difference much lefs than might be expected from the difference of latitude, and not fufficient to account why nonpareils, golden rennets, peaches, nectarines, and many kinds of grapes, generally come to maturity near London, and fcarce ever near Edinburgh, without the aid of artificial heat. Before I proceeded further to perplex myfelf with this difficulty,

ficulty, I procured from Hawkhill and from yourself the register of the thermometer for three years, at the same periods of time; copies of which I here inclose you. And by these it appears, that the mean heat of London of these three years exceeded that of Edinburgh by

4.5°. And the mean heat of the three hottest months in London exceeded the mean of the same three at Edin-

burgh by 5.8°. And the mean heat of these three summer months, at two o'clock in the afternoon, in London exceeded the mean heat of the same months, at the same

hour, in Edinburgh by 7.3°; which sufficiently accounts why some fruit may come to maturity in one country and not in the other: and also why corn and grass, which vegetate with a more temperate heat, but require a longer continuance of it, may arrive at maturity in both countries. The reason why the mean heat of London exceeds that of Edinburgh may arise principally from the difference of latitude. But the reason why the excess is greater in proportion in the three hottest months of the year, at the hottest time of the day, than in the winter months, arises from Edinburgh's being situated nearer to the sea than London. We might speak with more precision on this subject, if we had a register of the thermometer at Moscow, which is nearly of the same latitude as Edinburgh; though it is well known, that the heat of summer is much more intense, and the cold of winter much more severe, at Moscow than at Edinburgh. The mean heat of springs near Edinburgh seems to be 47°; and at London

don 51°. It is probable, that the mean heat of good springs in any country is very nearly the mean heat of the country (*a*). A faithful account of the heat of springs in different latitudes, and of water taken from the same depth of the sea in different latitudes is yet wanted.

I am, &c.

(*a*) We shall have an easy method of finding the mean heat of any place, if it be always nearly equal to that of its springs. This matter might be ascertained by a proper number of observations; and it is therefore very desirable, to have an account taken of the heat of the springs, wherever a register is kept of the heat of the air. W. HEBERDEN.

Mean Heat in PALL MALL, LONDON.								
	1772.		1773.		1774.		Mean heat of Three Years.	
	8 A.M.	2 P.M.	8 A.M.	2 P.M.	8 A.M.	2 P.M.	8 A.M.	2 P.M.
January	36	38	42	44	34	39	37.3	40.3
February	38	42	36	41	38	44	37.3	42.3
March	41	47	40	51	41	52	40.7	50
April	44	51	45	55	47	55	45.3	53.7
May	49	60	50	60	51	60	50	60
June	64	73	58	67	59	67	60.3	69
July	61	72	60	68	61	69	60.7	69.7
August	60	70	62	72	62	70	61.3	70.7
September	56	65	56	63	55	63	55.7	63.7
October	56	61	51	59	48	58	51.7	59.3
November	45	55	40	47	40	44	41.7	48.7
December	41	44	41	45	39	43	40.3	44
Mean	49.2	56.5	48.4	56	47.9	55.3	48.5	56
Mean heat of three years morning and afternoon was 52.2.								

Mean

Mean heat at HAWKHILL, situated about one mile North of Edinburgh, and 103 feet above the level of the sea.

	1772.		1773.		1774.		Mean Heat of Three Years.	
	8 A.M.	2 P.M.	8 A.M.	2 P.M.	8 A.M.	2 P.M.	8 A.M.	2 P.M.
January	31.5	34.3	38.5	40.3	29.1	33	33.3	35.8
February	30.9	36.5	35.1	40.7	36.2	40.4	34	39.2
March	37	42.8	42.1	48.4	37.1	43.2	38.7	44.8
April	42.9	48.5	45.6	51.1	44.1	48.9	44.2	49.5
May	49.1	54.5	48.6	53.1	46.6	50.8	48.1	52.8
June	57.2	62.1	55.2	60.1	51.1	59.7	54.5	60.6
July	58.7	64.6	57.7	61.9	57.4	63.3	57.9	63.3
August	57.4	63.9	58.3	64.8	57.2	62.5	57.6	63.7
September	51.5	58.1	51.3	55.8	51.7	57.8	51.5	57.2
October	48.8	51.6	46	50.7	48.3	52.8	47.7	51.7
November	41.7	44.6	38.2	42.3	38	42	39.3	42.9
December	39.7	41.6	36.4	38.5	37.3	40	37.8	40
Mean heat,	45.5	50.3	46.1	50.6	44.5	49.5	45.4	50.1

Mean heat of three years morning and afternoon was 47.7.